

### **GOAL**

Reduce/further control noise in the oceans

Why? – effect on marine mammals (others?)
Uncertainty on which precisely, vary with noise/location

Peter Tyack

What noise? – priority is loud low frequency

Main sources 'big tickets' are military, seismic and shipping

How important? – many views – cultural diversity (note culture does not equal national)
Need to converge?

This is important as any action will cost resources

## Difficulties

Not an "issue" (or rarely considered)

Legislation/treaties (few, none focussed)

Transboundary

Many users, with differing priorities

Considered by the seven case studies

# Opportunities

Some users well aware

- Military (have technology)
- Seismic (guidelines)
- Shipping (awakening, but with parallels

Pollution treaties

Nature Conservation legislation / treaties

Considered by the seven case studies and Lindy Johnson

Mitigation

Education

Source users

Legal framework

**Mitigation** 

Some techniques work, geographical/temporal shifts seem best

Improve/ develop /better understand techniques

Transfer knowledge – between sectors & geographically

Jay Barlow and Group 1B

#### Education

Widest sense

Careful crafting, culturally sensitive

Main aim is to get issue debated and up agenda

Societal input essential

Critical events very useful Elena McCarthy

Work with source users

Military

Largely there, maybe greater transparency

Seismic

Global guidelines? – open for comments?

Encourage further mitigation

Shipping

Challenge industry and ship-designers

Most groups

Legal framework

Environmental Assessment Karl Fuller

Difficulties on 'correct' scale + transboundary

Embedded in EA is Risk Assessment John Harwood

Need greater understanding, add 'novel' techniques

Acceptable risk is a cultural choice

New treaty not widely seen as good way forward

Prescriptive or Performance

Most groups

# Ways forward

Many treaties available

United Nations Informal Consultative Process on the Law of the Sea

Research – bottom up and top down balance

Parallels with global warming – should we learn?

Have to respect cultural choice